In the claims

Please amend the same-numbered claims as follows:

1. (Third amendment)   In a graphics system, a computer-implemented method of rendering a graphic primitive, the graphic primitive having a plurality of sides that define the edge of the primitive, the method comprising:

receiving a signal from an interface, the signal comprising data about a plurality of vertices of the primitive and an independent variable;

determining a channel value for each of the plurality of vertices of the primitive using the data about the plurality of vertices and the independent variable;

selecting an interior point within the graphic primitive;

selecting at least two side points located on a side of the graphic primitive;

determining an interpolated channel value with an interpolation engine for each of the at least two side points; and

determining a channel value at the selected interior point by interpolation from the interpolated channel values of each of the at least two side points.

8. (Third amendment) An electronically-readable medium storing a program for permitting a computer to perform a method comprising:

receiving a signal from an interface, the signal comprising data about a plurality of vertices of the primitive and an independent variable;

determining a channel value for each of the plurality of vertices of the primitive using the data about the plurality of vertices and the independent variable;

selecting an interior point within the graphic primitive;

determining an interpolated channel value with an interpolation engine for each of at least two side points; and

determining a channel value at the selected interior point by interpolation from the interpolated channel values of each of the at least two side points.

9. (Amended)   A method of rendering a graphic primitive, the primitive including a plurality of edges, the method comprising:

receiving a signal from an interface, the signal comprising data about the plurality of vertices of the primitive and an independent variable;

deriving a channel value of a first point on a first edge of the graphic primitive using data about the plurality of vertices of the primitive and an independent variable;

deriving a channel value of a second point on a second edge of the graphic primitive using data about the plurality of vertices of the primitive and an independent variable; and

based upon the channel values of the first point and the second point, determining a channel value for an interior point located within an interior surrounded by the edges of the graphic primitive.

13. (Amended)   An electronically-readable medium storing a program for permitting a computer to perform a method comprising:

receiving a signal from an interface, the signal comprising data about a plurality of vertices of a primitive and an independent variable;

deriving a channel value of a first point on a first edge of the [a] graphic primitive using data about the plurality of vertices of the primitive and an independent variable;

deriving a channel value of a second point on a second edge of the graphic primitive using data about the plurality of vertices of the primitive and an independent variable; and

based upon the channel values of the first point and the second point, determining a channel value for an interior point located within an interior surrounded by the edges of the graphic primitive.

14. (Amended) A system for rendering a graphic primitive, the graphic primitive including a plurality of vertices and edges, the system comprising:

a plurality of agents configured to receive information from an interface related to the plurality of vertices and generate output signals;

an arbiter coupled to the plurality of agents and configured to receive the output signals and to generate request signals;

an interpolation engine configured to receive the request signals and generate an output ratio signal dependent on at least some of the output signals from the plurality of agents; and

a router coupled to the interpolation engine and configured to transmit the output ratio signal to an input of at least one of the plurality of agents.

15. (Third amendment)   A system for rendering a graphic primitive in a graphics

system, the graphic primitive having a plurality of sides, the system comprising:

a channel value input device configured to determine a channel value for each of

a plurality of vertices of the graphic primitive using data received from an interface;

a point specifier, coupled to the channel value input device, configured to select a

point within the graphic primitive; and

an interpolation engine coupled to the point specifier and to the channel value

input device, configured to determine an interpolated channel value for each of at least

two side points using data received from the interface, and further configured to

determine a channel value at the selected point by interpolation from the interpolated

values.

23. (Amended)   A method of generating interpolated values for use in rendering a

graphic primitive, the method comprising:

receiving from an interface an independent variable X representing the physical

portion of a point;

receiving vertex values X0, X1 of a primitive edge having the point with the

physical position represented by the independent variable X;

receiving depth values Z0, Z1 associated with the vertex values X0, X1; and

calculating a ratio value dependent upon the independent variable X, vertex

values X0, X1, and depth values Z0, Z1.

27. (Amended)   An electronically-readable medium storing a program for permitting

a computer to perform a method of generating interpolated values for use in rendering

a graphic primitive, the method comprising:

receiving from an interface an independent variable X representing the physical

position of a point;

receiving from the interface vertex values X0, X1 of a primitive edge having the

point with the physical position represented by the independent variable X;

receiving from the interface depth values Z0, Z1 associated the vertex values X0,

X1; and

calculating a ratio value dependent upon the independent variable X, vertex

values X0, X1, and depth values Z0, Z1.